## IN THE CLAIMS:

Kindly rewrite Claims 1-10 as follows, in accordance with 37 C.F.R. § 1.121:

- 1. (Currently amended) A  $\gamma$ -proteobacterium having an ability to produce a target substance and modified so that an the production of ArcA protein-does not normally function is reduced or eliminated, wherein said  $\gamma$ -proteobacterium has an improved ability to produce a target substance synthesized via the tricarboxylic acid cycle as compared to a wild-type  $\gamma$ -proteobacterium.
- 2. (Currently amended) The γ-proteobacterium according to claim 1, wherein the said ArcA protein that normally functions is selected from the group consisting of a protein defined in the following (A) or (B):
- (A) a protein having comprising the amino acid sequence of SEQ ID NO: 32; and
- (B) a protein-having the amino acid sequence of SEQ ID NO: 32 including substitution, deletion, insertion or addition of one or several amino acids and improving an ability to produce a target substance when the protein does not normally function in the γ proteobacterium compared with the case where the protein normally functions comprising up to 10 amino acid substitutions, deletions, or insertions in the amino acid sequence of SEQ ID NO: 32.
- 3. (Currently amended) The  $\gamma$ -proteobacterium according to claim 1, wherein the said ArcA protein is selected from the group consisting of: that normally functions is a protein having 70% or more of homology to the amino acid sequence of SEQ ID NO: 32 and improving an ability to produce a target substance when the protein does not normally function in the  $\gamma$  proteobacterium compared with the case where the protein normally functions.
  - (A) a protein comprising the amino acid sequence of SEQ ID NO: 32; and
- (B) a protein comprising an amino acid sequence which is at least 70% homologous to SEQ ID NO: 32.
  - 4. (Canceled)

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- 5. (Currently amended) The γ-proteobacterium according to claim 1, wherein said production of the ArcA protein is reduced or eliminated does not normally function by means of disruption of an *arcA* gene on a chromosome.
- 6. (Currently amended) The γ-proteobacterium according to claim 5, wherein the said arcA gene is selected from the group consisting of: DNA defined in the following (a) or (b):
- (a) DNA containing the nucleotide sequence of the nucleotide number 101 to 817 of SEQ ID NO: 31; and
- (b) DNA which is able to hybridize hybridizable with the nucleotide sequence of the nucleotide numbers 101 to 817 of SEQ ID NO: 31 or a probe that can be produced from the nucleotide sequence under the stringent condition conditions comprising washing at a salt concentration of 1 x SSC, 0.1% SDS at 65° Cand coding for a protein that improves an ability to produce a target substance when the protein does not normally function compared with the case where the protein normally functions.
- 7. (Currently amended) The  $\gamma$ -proteobacterium according to claim 1, which iscomprising a bacterium belonging to the genus *Escherichia*.
- 8. (Currently amended) The  $\gamma$ -proteobacterium according to claim 1, wherein the said target substance is comprises an L-amino acid.
- 9. (Currently amended) The γ-proteobacterium according to claim 8, wherein the said L-amino acid is selected from the group consisting of L-lysine, or L-glutamic acid, L-arginine, and L-threonine.
- 10. (Currently amended) A method for producing a target substance synthesized via the tricarboxylic acid cycle, which comprises comprising:
- (a) \_\_-culturing the  $\gamma$ -proteobacterium according to any one of claims 1 to 9 claim 1 in a medium to produce and accumulate the target substance in the medium or cells-; and
  - (b) collecting the said target substance from the medium or cells culture.

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